

Editorial

Language Sense and Communication on Computer

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We have roughly defined the “language sense” as an expression that underlines affective or psychological aspects of language. Today in the AI field, the ability (power) of mathematical calculation and data analysis will be superior to human power. However, for the emotional aspect (KANSEI in Japanese) of processing, still computers cannot deal with such problems properly. Accordingly in this special issue, we would have liked to deal with several problems related to language sense on computers and applications dealing with *language sense* in written texts and dialogues.

For this special issue we could accept eight papers.

The paper by M. Ogasahara et al. deals with rumors on Twitter. In fact, Twitter will be one of the good tools to express our ideology and philosophy as well as simple information. They analyzed rumor on Twitter during the 2011 Great East Japan Earthquake. They showed the difference in expression changes between diffused rumor tweets and nondiffused rumor tweets during the Great East Japan Earthquake in 2011. The contrast between the few expression changed in diffused tweets and the many such changes in nondiffused tweets implied the existence of information filters on Twitter, namely, hubs. Thus they showed language expression change as language sense.

The paper by T. Matsuki and J. Nakamura deals with the effects of the values and attitudes of retail and service industry employees on employee satisfaction (ES) and identified differences between regular and nonregular employees. They concluded employee values affected ES; the values of regular and nonregular employees are not significantly statistically different. They also showed that keywords of free answer comments implied the values of both features.

In the paper by T. Hayashi and Y. Ohsawa, they discuss what kinds of data should be acquired to understand situations of belief drift (BD). They showed that even though the terms used to explain events or problems differ, since the framework of thought and understanding are relatively the same, the Variable Labels necessary for understanding the state of BD attained higher commonality. Thus their results suggest that, even if the terms used to explain the state of BD differ, the data acquired to understand BD are common.

In the paper by T. Akimoto, his basic idea is that stories are representational elements forming an agent’s mental world and are also living objects that have the power of self-organization. Accordingly, he developed this idea by discussing the complexities of the internal structure of a story and the organizational structure of a mental world. In particular, he classified the principles of the self-organization of a mental world into five types of generative actions, i.e., connective, hierarchical, contextual, gathering, and adaptive. An integrative cognition is explained with these generative actions in the form of a distributed multiagent system of stories.

In the paper by N. Komiya and J. Nakamura, based on the idea that a word can carry different meanings for different people, they conducted conjoint analysis. Particularly it was applied to assess preferences for various words describing integrated resorts (IR) including casinos, to be introduced in Japan in the future. They discussed how the participants understood particular words (e.g., a specific casino’s place name or wording regarding restrictions on betting) that define the characteristics of a casino, as well as how casino-related words influenced participants’ preferences.

The paper by M. Uther et al. investigated user experiences from 117 Finnish children aged between 8 and 12 years in a trial of an English language learning programme that used automatic speech recognition (ASR). They used measures that encompassed both affective reactions and questions tapping into the children's sense of pedagogical utility. They also tested children's perception of sound quality and compared reactions of game and nongame-based versions of the application. Their results showed that children expressed higher affective ratings for the game compared to nongame version of the application. Children also expressed a preference to play with a friend compared to playing alone or playing within a group. Children found assessment of their speech useful although they did not necessarily enjoy hearing their own voices. Their results can be discussed in terms of the implications for UI user interface (UI) design in speech learning applications for children.

H. Murai's paper analyzed the characteristics of utterances in Japanese novels. Based on the attribute (e.g., the speaker, listener, relationship between the speaker and listener, and gender of the speaker) annotated utterance corpus, the characteristics of utterance styles were extracted quantitatively. A chi-square test was used for particles and auxiliary verbs to extract utterance characteristics which reflected the genders of and relationships between the speakers and listeners. His results revealed that the use of imperative words was higher among male characters than their female counterparts, who used more particle verbs, and that auxiliaries of politeness were used more frequently for "coworkers" and "superior authorities". In addition, utterances varied between close and intimate relationships between the speaker and listener. Moreover, repeated factor analyses for 7576 datasets in BCCWJ (Balanced Corpus of Contemporary Written Japanese) speaker information corpus revealed ten typical utterance styles (neutral, frank, dialect, polite, feminine, crude, aged, interrogative, approval, and dandy). The factor scores indicated relationships between various utterance styles and fundamental attributes of speakers. Thus, results of this study would be utilizable in speaker identification tasks, automatic speech generation tasks, and scientific interpretation of stories and characters.

The paper by R. Jucks et al. reported a study that manipulates an SDS's (spoken dialogue system) word use with regard to politeness. In an experiment, 58 young adults evaluated the spoken messages of our self-developed SDS as it replied to typical questions posed by university freshmen. The answers were formulated either politely or rudely. Dependent measures were both holistic measures of how students perceived the SDS as well as detailed evaluations of each single answer. Their results showed that participants evaluated not only the content of rude answers as being less appropriate and less pleasant than the polite answers, but also the rude system as less accurate. Lack of politeness also impacted aspects of the perceived trustworthiness of the SDS. They concluded that users of SDS expect such systems to be polite, and they then discussed some practical implications for designing SDS.

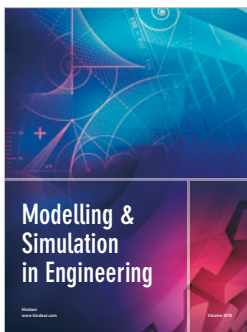
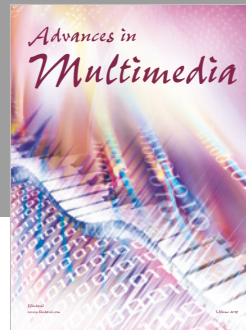
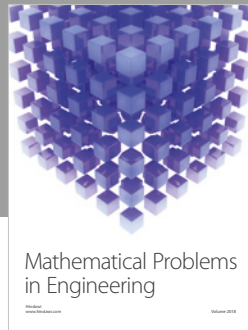
Thus several features of language sense were analyzed. Reviewing papers in this special issue, a strategy or technique

for a literary work generation can be suggested. In addition, hidden factors in spoken or Twitter language have been revealed. By using results, for instance, a very natural, sophisticated, and smart chat or Twitter system can be constructed.

Conflicts of Interest

The editors declare that they have no conflicts of interest regarding the publication of this special issue.

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